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EXAMINER

NASH, LASHANYA RENEE

ART UNIT PAPER NUMBER

2153

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,329

Applicant(s)

ANSON ET AL.

Examiner

LaShanya R Nash

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-19 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation, "the received response". However, there is no clear antecedent basis for this limitation. In order to clarify the claim language, claim 13, line 1, should have read, "The computer readable medium of claim 12".

Claims 15-19 recite functional language regarding applicant's system without specifying the means that is performing the functions. These claims can be interpreted in several contradictory ways, and subsequently are determined to be indefinite. For purposes of the following art rejections, it is interpreted that the routing device is performing the functional limitations of the aforementioned claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed method comprises a series of steps that are not implemented on a computing device, and are subsequently not technologically embodied. Therefore, the aforementioned claim is directed to a non-statutory process.

To expedite a complete examination of the instant application the claim rejected under 35 U.S.C. 101 (nonstatutory) above is further rejected as set forth below in anticipation of applicant amending this claim to place it within the four statutory categories of invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen et al. (US Patent 6,292,669), and further in view of Segur (US

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Patent 6,212,550), hereinafter referred to as Meuronen and Segur respectively.

In reference to claim 1, Meuronen discloses a method and system for routing Short Messaging Service (SMS) messages based on the particular SMS service (i.e. application) required for receiving SMS messages of a designated format (column 2, lines 4-23). Meuronen further discloses that SMS messages are routed to a specific SMS service via the short message service center (SMSC) servers (i.e. providers) that are associated with the aforementioned services (column 5, lines 29-38 and column 7, lines 20-25).

Meuronen discloses a SMS routing method comprising: receiving a message, (column 7, lines 34-38 and Figure 6); and associating the message with a provider, (column 7, lines 38-44). However, Meuronen does not disclose informing an application associated with the provider that the message is waiting. Nonetheless, this modification would have been obvious to one of ordinary skill in the art at the time of the invention, as evidenced by Segur.

In an analogous art, Segur discloses a method that involves a server informing an application that messages are waiting in order to convert the stored messages into the appropriate data format to be received by that application (column 1, lines 62-65; column 3, lines 35-43; and Figure 6). One of ordinary skill in the art would have been so motivated to implement this modification in the SMS routing methodology as disclosed by Meuronen, so as to increase the SMS routing functionality to store messages for later transmission in case the receiving party is not reached (Meuronen column 4, lines 31-35).

In reference to claim 2, Meuronen and Segur show the SMS method comprising: waiting for a the application to request the message, (Segur column 3, lines 52-55 and Figure 6); formatting the message to the requirements of the application, (Segur column 3, lines 55-58 and Figure 6); and delivering the message to the application, (Segur column 3, lines 62-65 and Figure 6).

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen and Segur as applied to the claims above, and further in view of Gehr et al. (US Patent 5,828,847), hereinafter referred to as Gehr.

In reference to claim 3, Meuronen and Segur teach a SMS message routing method that involves providing a message to a preferred default SMSC server (i.e. provider), and subsequently determining the appropriate provider that is associated with the message for proper routing (Meuronen column 7, lines 7-20). However, the references do not explicitly teach providing the message to a provider based on priority levels. Nevertheless, automatic routing of client messages to servers based on priority was well known in the art at the time of the invention, as evidenced by Gehr. Therefore, these modifications to the SMS routing method would have been obvious to one of ordinary skill in the art.

In a analogous art, Gehr teaches providing client requests to a server based on priority in order to automatically route messages from clients to servers according to a predetermined hierarchically order server-communication method preference scheme, (column 2, lines 56-65;column 5, lines 18-31; and Figure

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5B). One of ordinary skill in the art would have been so motivated to implement the aforementioned modifications, so as to provide certain SMS services that are thought to have a higher volume of requests a higher priority in the logical routing process.

In reference to claim 4, Meuronen, Segur, and Gehr show a SMS message routing method wherein the SMSCs (i.e. providers) have a unique priority level, (Gehr column 2, lines 56-55; column 5, lines 20-31; and Figure 2).

In reference to claim 5, Meuronen, Segur, and Gehr show a SMS routing method comprising: receiving a response from the prioritized SMSC server (i.e. provider) indicating if the prioritized provider is associated with the message, (Meuronen column 7, lines 12-14; column 7, lines 34-42; and Gehr column 2, lines 56-65); and associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message, (Meuronen column 7, lines 14-17, and column 7, lines 42-44).

In reference to claim 6, Meuronen, Segur, and Gehr show a SMS routing method wherein: associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message further comprises storing the message in a location associated with the prioritized provider, (Meuronen column 7, lines 14-17; column 7, lines 42-44; and column 4, lines 31-35).

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen and Segur as applied to claims above, and further in view of Lothia et al. (US Patent 6,560,456), hereinafter referred to as Lothia.

In reference to claim 7, Meuronen discloses a method for routing SMS messages based on the required SMS service (i.e. application) that comprises: receiving a message, (column 7, lines 34-38); and associating the message with a provider from a database (i.e. list) of providers, (column 7, lines 38-44). However, Meuronen fails to disclose informing an application associated with the provider that the message is waiting. Nonetheless, this modification would have been obvious to one of ordinary skill in the art at the time of the invention, as evidenced by Segur.

In an analogous art, Segur discloses a method that consists of informing a receiving application of stored messages in order to format the messages to the requirements of the application (column 1, lines 62-65; column 3, lines 35-43; and Figure 6). One of ordinary skill in the art would have been so motivated to implement this modification in the SMS routing methodology as disclosed by Meuronen, so as to increase the SMS routing functionality to store messages for later transmission in case the receiving party is not reached (Meuronen column 4, lines 31-35). Although Meuronen and Segur disclose substantial features of the claimed invention, the references fail to disclose a computer-readable medium having the computer-executable instructions for the aforementioned

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SMS routing method. Nonetheless, SMS routing software was well known in the art at the time of the invention, as evidenced by Lothia. Therefore, this modification to the SMS routing system would have been obvious to one of ordinary skill in the art.

Lothia explicitly discloses, "existing Mobile Switching Center (MSC) software" that is employed by SMS networks to rout email and other text messages to subscribers (column 1, lines 1-43 and column 1, line 65 to column 2, line 3). One of ordinary skill in the art would have been so motivated to incorporate a software product for SMS routing in order to provide a technique for the unification of different SMSCs and associated message formats that may be used in different telecommunication system.

In reference to claim 8, Meuronen, Segur, and Lothia show a SMS routing software product with computer-executable instructions comprising: waiting for the application to request the message, (Segur column 3, lines 52-55 and Figure 6); formatting the message to the requirements of the application, (Segur column 3, lines 55-58 and Figure 6); and delivering the message to the application, (Segur column 3, lines 62-65 and Figure 6).

In reference to claim 9, Meuronen, Segur, and Lothia show a SMS routing software product with computer-executable instructions wherein: formatting the message for the application further comprises providing access to the message to the provider associated with the requesting service (i.e. application),

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(Meuronen column 5, lines 29-38 and column 7, lines 41-45); and the provider associated with the requesting application formatting the message to the requirements of the application, (Meuronen column 6, lines 34-43; Segur column 1, lines 55-65; and column 3, lines 55-58).

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen, Segur, and Lothia as applied to claims above, and further in view of Gehr.

In reference to claim 10, Meuronen, Segur, and Lothia teach substantial features of the claimed invention, specifically SMS message routing software with executable instructions that comprises providing a message to a preferred default SMSC server (i.e. provider), and subsequently determining the appropriate provider that is associated with the message for routing, (Meuronen column 7, lines 7-20). However, the references do not teach a software product with computer-executable instructions comprising: prioritizing the set of SMSC servers (i.e. providers) based on a priority level; and providing access to the messages to each of the providers in order of priority until the message has been associated. Nonetheless, one of ordinary skill in the art would have readily recognized the advantages to these modifications, as evidenced by Gehr.

Gehr teaches prioritizing a set of communication servers based on a priority level in a hierarchical list for routing client request to alternate servers (column 5, lines 20-31 and column 2, lines 56-65). Gehr further discloses that the message routing process is self-directed to request servers according to the

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hierarchy of successive alternate servers until the request is processed to completion (column 7, lines 32-39 and Figure 5B). One of ordinary skill in the art at the time of the invention would have been motivated to incorporate the aforementioned limitations into the SMS message routing software in order for certain SMS services that are thought to have higher volume of use to have a higher priority in the logical routing process.

In reference to claim 11, Meuronen, Segur, Gehr and Lothia show a SMS routing software product with computer-executable instructions wherein: the SMSCs (i.e. providers) have a unique priority level, (Gehr column 2, lines 56-55; column 5, lines 20-31; and Figure 2).

In reference to claim 12, Meuronen, Segur, Gehr and Lothia show a SMS routing software product with computer-executable instructions comprising: receiving a response from the prioritized SMSC server (i.e. provider) indicating if the prioritized provider is associated with the message, (Meuronen column 7, lines 12-14; column 7, lines 34-42; and Gehr column 2, lines 56-65); and associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message, (Meuronen column 7, lines 14-17, and column 7, lines 42-44).

In reference to claim 13, Meuronen, Segur, Gehr and Lothia show a SMS routing software product with computer-executable instructions wherein:

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associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message further comprises storing the message in a location associated with the prioritized provider, (Meuronen column 7, lines 14-17; column 7, lines 42-44; and column 4, lines 31-35).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen as applied to claims above, and further in view of Kamm et al. (US Patent 5,457,680), hereinafter referred to as Kamm.

In reference to claim 14, Meuronen discloses a system for routing SMS messages to SMS service (i.e. applications). Meuronen specifically discloses SMSC and short message gateway message service center (SMS-GMSC) servers as routing devices within the SMS routing system (column 7, lines 35-44; Figure 3; and Figure 5). In addition, Meuronen further discloses that the SMS routing device performs actions that include: receiving a message, (column 5, line 65 to column 6, line 2); associating the message with a provider, (column 6, line 2-7; column 24-42; and Figure 4); and delivering the message to an application associated with the provider, (column 6, line 47-54 and column 6, line 66 to column 7, line 6). However, Meuronen fails to show explicitly a system for routing SMS messages comprising: a processor and a computer-readable medium; an operating system stored in the computer readable medium and executing on the processor; and a communication connection device operating under the control of the operating environment. Nonetheless, routing systems

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with these aforementioned limitations were well known in the art at the time of the invention, as further evidenced by Kamm. Thus, these would have been obvious modifications for the SMS routing system disclosed by Meuronen to one of ordinary skill in the art.

In an analogous art, Kamm discloses gateway servers, which are employed in a mobile communication routing system, that comprise: a processor and a computer-readable medium, (column 5, lines 55-56 and Figure 1A); an operating system stored in the computer readable medium and executing on the processor, (column 5, lines 58-66 and Figure 1A); and a communication connection device operating under the control of the operating environment, (column 5, lines 37-43 and Figure 1A). One of ordinary skill in the art would have readily recognized the advantages to implementing the aforementioned limitations into the short message gateway MSCs servers as disclosed in the SMS routing system, so as ensure that data packets sent to and received from a subscriber are reliably communicated (Kamm column 3, lines 5-11).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen and Kamm as applied to claims above, and further in view of Segur.

In reference to claim 15, Meuronen and Kamm show substantial features of the claimed invention, specifically a system for routing SMS messages. However, the references fail to show: waiting for the application to request the message; and formatting the message to the requirements of the application.

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These modifications would have been obvious to the SMS-GMSC server (i.e. routing device) of the disclosed SMS routing system, as evidenced by Segur.

In an analogous art, Segur discloses a multi-format communications server in which the functionality comprises: waiting for the application to request the message, (Segur column 3, lines 52-55 and Figure 2); and formatting the message to the requirements of the application, (Segur column 3, lines 55-58 and Figure 2). One of ordinary skill in the art would have been so motivated to implement these modifications to the SMS routing system, so as to support unification of different SMSCs and associated message formats that may be used in different telecommunication systems.

Claim 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meuronen, Kamm, and Segur as applied to claims above, and further in view of Gehr.

In reference to claim 16, Meuronen, Kamm, and Segur show a SMS message routing system in which the SMS-GMSC (i.e. routing device) provides a message to a preferred default SMSC server (i.e. provider), and subsequently the default SMSC determines the appropriate provider that is associated with the message for complete routing, (Meuronen column 7, lines 7-20 and Figure 5). However, the references do not explicitly show providing the message to a provider based on priority levels. Nevertheless, automatic routing of client messages to server based on priority was well known in the art at the time of the

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invention, as evidenced by Gehr. Therefore, these modifications to the SMS routing system would have been obvious to one of ordinary skill in the art.

In a analogous art, Gehr teaches a client-server communication architecture that provides client requests to a server based on priority in order to automatically route messages from clients to servers according to a predetermined hierarchically ordered list of successive alternate servers, (column 2, lines 56-65; column 5, lines 18-31; Figure 1; and Figure 2). One of ordinary skill in the art would have been motivated to accordingly modify the SMS message routing system in order to provide certain SMS services that are thought to have a higher volume of requests a higher priority in the logical routing process, and thereby increasing system efficiency.

In reference to claim 17, Meuronen, Kamm, Segur, and Gehr show a SMSC and SMS-GMSC server (i.e. routing device) of the SMS routing system comprising: receiving a response from the prioritized SMSC server (i.e. provider) indicating if the prioritized provider is associated with the message, (Meuronen column 7, lines 12-14; column 7, lines 34-42; and Gehr column 2, lines 56-65); and associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message, (Meuronen column 7, lines 14-17, and column 7, lines 42-44).

In reference to claim 18, Meuronen, Kamm, Segur, and Gehr show a SMSC and SMS-GMSC server (i.e. routing device) of the SMS routing system

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wherein: associating the message with the prioritized provider if the received response indicates that the prioritized provider is associated with the message further comprises storing the message in a location associated with the prioritized provider, (Meuronen column 7, lines 14-17; column 7, lines 42-44; column 4, lines 31-35; and Figure 5).

In reference to claim 19, Meuronen, Kamm, Segur, and Gehr show a SMSC and SMS-GMSC server (i.e. routing device) of the SMS routing system wherein: formatting the message for the application further comprises providing access to the message to the provider associated with the requesting service (i.e. application), (Meuronen column 5, lines 29-38 and column 7, lines 41-45); and the provider associated with the requesting application formatting the message to the requirements of the application, (Meuronen column 6, lines 34-43; Figure 5; Segur column 1, lines 55-65; and column 3, lines 55-58).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShanya R Nash whose telephone number is (703) 305-8910. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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